AMENDMENTS TO THE CLAIMS

1 1. (Currently Amended) A <u>computer-implemented</u> method for generating a mapping

2 scheme, the method comprising:

3 ~~reading source data definition that includes information about attributes of a source;~~

4 ~~reading target data definition that includes information about attributes of a target;~~

5 receiving commands from a user, wherein said commands establish a mapping

6 between one or more attributes of ~~said~~ <u>a</u> source and one or more attributes of

7 ~~said~~ <u>a</u> target; ~~and~~

8 <u>wherein a plurality of attributes of said source are related to each other according to a</u>

9 <u>first hierarchy that includes multiple hierarchical levels;</u>

10 <u>wherein a plurality of attributes of said target are related to each other according to a</u>

11 <u>second hierarchy that includes multiple hierarchical levels;</u>

12 <u>wherein said commands establish, in said mapping, that a particular hierarchical level</u>

13 <u>of said source is mapped to a particular hierarchical level of said target,</u>

14 <u>wherein said particular hierarchical level of said source is at a different depth,</u>

15 <u>within said first hierarchy, than the depth of said particular hierarchal level of</u>

16 <u>said target within said second hierarchy; and</u>

17 based on said commands, automatically generating a mapping scheme that represents

18 said mapping, wherein said mapping includes at least one of<u>:</u>

19 multiple attributes of said source mapped to a single attribute of said target;

20 and

21 multiple attributes of said target mapped to a single attribute of said source.

1 2. (Currently Amended) The method of claim 1, further comprising using said mapping

2 scheme to create an electronic document with data from said source, wherein the

3 electronic document has a particular format dictated by ~~the~~ <u>a</u> target data definition.

1 3. (Currently Amended) The method of claim 1, further comprising using said mapping

2 scheme to store, into said target, data from an electronic document, wherein the

3 electronic document has a particular format dictated by ~~the~~ <u>a</u> source data definition.

1 4. (Original)   The method of claim 1, wherein said mapping scheme further includes
2   instructions on how to collapse a number of attributes of said source into a smaller
3   number of attributes of said target.

1 5. (Original)   The method of claim 1, wherein said mapping scheme further includes
2   instructions on how to expand a number of attributes of said source to a greater
3   number of attributes of said target.

1 6. (Original)   The method of claim 1, wherein:
2   the step of receiving commands from a user includes receiving user input that
3   specifies a condition, and an action associated with the condition; and
4   the method further comprises the steps of
5   performing an operation that includes converting data, based on said mapping
6   scheme, from the source to a format associated with the target;
7   during performance of said operation, performing the steps of
8   determining whether the condition is satisfied; and
9   if the condition is satisfied, then performing said action.

1 7. (Original)   The method of claim 1, wherein:
2   the step of receiving commands from a user includes receiving user input that
3   specifies a specific set of instructions; and
4   the method further comprises the steps of
5   performing an operation that includes converting data, based on said mapping
6   scheme, from the source to a format associated with the target; and
7   during performance of said operation, executing the specific set of instructions
8   to affect said operation.

1 8. (Original)   The method of claim 1, wherein:
2   the step of receiving commands from a user includes receiving user input that
3   declares a variable to which values can be assigned; and

4   the method further comprises the steps of

5   performing an operation that includes converting data, based on said mapping

6   scheme, from the source to a format associated with the target; and

7   during performance of said operation, using said variable.

1   9.   (Original)   The method of claim 1, wherein:

2   the step of receiving commands from a user includes receiving user input that

3   specifies a precompiled routine; and

4   the method further comprises the steps of

5   performing an operation that includes converting data, based on said mapping

6   scheme, from the source to a format associated with the target; and

7   during performance of said operation, calling said precompiled routine to

8   affect said operation.

1   10.   (Currently Amended) The method of claim 1, ~~wherein~~ <u>further comprising</u>:

2   ~~the attributes of said source correspond to a number of hierarchical levels;~~

3   ~~the attributes of said target correspond to a number of hierarchical levels; and~~

4   ~~the method further comprises the step of receiving user input that establishes a~~

5   ~~mapping between one or more hierarchical levels of said source and one or~~

6   ~~more hierarchical levels of said target~~

7   <u>reading source data definition that includes information about said plurality of</u>

8   <u>attributes of said source;</u>

9   <u>reading target data definition that includes information about said plurality of</u>

10   <u>attributes of said target; and</u>

11   <u>based on said source data definition and said target data definition, presenting to said</u>

12   <u>user an interface that identifies said plurality of attributes of said source and</u>

13   <u>said plurality of attributes of said target;</u>

14   <u>wherein said step of receiving commands from said user is performed by receiving</u>

15   <u>said commands through said interface.</u>

1   11.   (Currently Amended) The method of claim [[10]] 1, wherein said mapping scheme
2   includes instructions on how to collapse a number of hierarchical levels of said source
3   into a smaller number of hierarchical levels of said target.

1   12.   (Currently Amended) The method of claim [[10]] 1, wherein said mapping scheme
2   includes instructions on how to expand a number of hierarchical levels of said source
3   to a greater number of hierarchical levels of said target.

1   13.   (Original)   The method of claim 1, wherein at least one of the source and the
2   target is a database.

1   14.   (Original)   The method of claim 1, wherein at least one of the source and the
2   target is an XML document.

1   15.   (Original)   The method of claim 1, wherein said source is one of a database and
2   an XML document and the target is the other of a database and an XML document.

1   16.   (Original)   The method of claim 1, wherein the source is a first XML document
2   and the target is a second XML document.

1   17.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 1.

1   18.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 2.

1   19.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 3.

1   20.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 4.

1   21.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 5.

1   22.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 6.

1   23.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 7.

1   24.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 8.

1   25.   (Original)   A computer-readable medium carrying one or more sequences of
2   instructions which, when executed by one or more processors, causes the one or more
3   processors to perform the method recited in Claim 9.

1 26. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 10.

1 27. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 11.

1 28. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 12.

1 29. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 13.

1 30. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 14.

1 31. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 15.

1 32. (Original) A computer-readable medium carrying one or more sequences of
2 instructions which, when executed by one or more processors, causes the one or more
3 processors to perform the method recited in Claim 16.